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ABSTRACT

Greatly expanded programs of financial aid based on need have made it possible for large numbers of low income students to attend college. Since test scores have high correlation with family income, one might wonder whether or not the increase in low income students taking the Scholastic Aptitude Test has caused the decline in mean scores, which has been observed over the past 14 years. This review of available College Entrance Examination Board information--candidate data, income distributions of entering freshmen, percentage of age groups in college by income levels, and impact of student aid on low income enrollment--shows an increased percentage of students coming from lower income families before 1972, but no significant change since that time. (Author/EVH)

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A Review of Data Available regarding Family Income and Financial Aid Characteristics of Students

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Introduction

One of the explanations offered for the Scholastic Aptitude Test (SAT) score decline is that large numbers of lower-income students are now going to college--in large part because of greatly expanded programs of financial aid based upon "need." Since it is well known that test scores are correlated with family income levels, a substantial increase in the percentage of low-income students taking the SAT and going to college would produce a decline in mean scores.

This review of data available failed to find any evidence that would indicate that the score decline is due in any measurable part to a change in the distribution of family income patterns of college-bound or enrolled students after 1972.

College Board Candidate Data

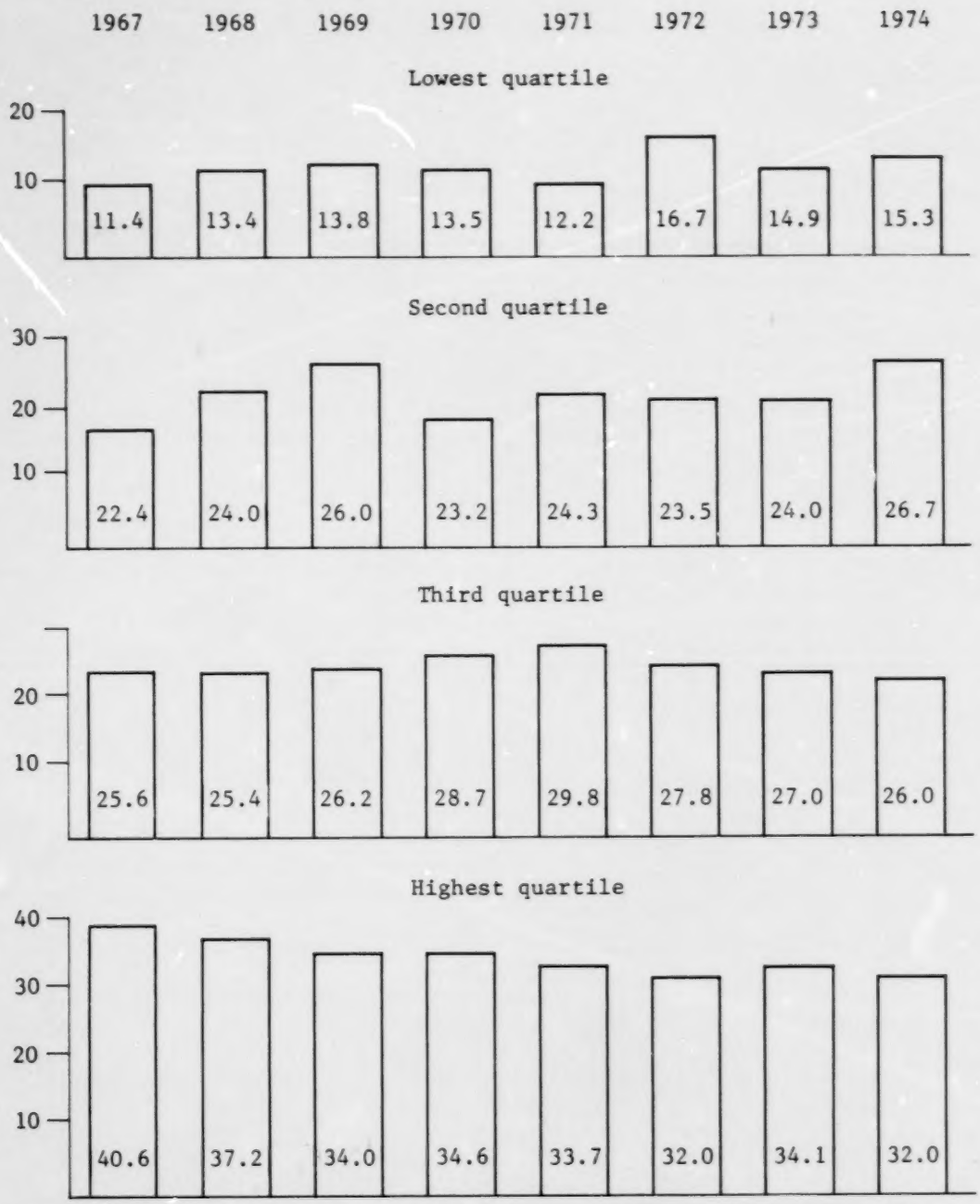
Comparisons of summary Student Descriptive Questionnaire (SDQ) data from the classes of 1971-72 through 1975-76 indicate a rise in reported parental income, as would be expected because of inflation. With inflation considered in constant dollar terms, the percentage of College Board candidates at income levels below $15,000 has remained relatively unchanged over the four-year period for which data are available, and the percentages with incomes above $15,000 has increased slightly. There is no evidence from the SDQ data that would indicate lower-income population reasons for the score decline during the past four years. With no other sources of income-related information available about students who have taken the SAT, a search was conducted for such data that might be descriptive of college-enrolled students over time.

Income Distributions of Entering Freshmen

U.S. Bureau of the Census data indicate that from the mid-1960s to 1972, students from low-income families did indeed enroll in colleges and universities in rapidly rising numbers. Table 1 shows that until 1972, entering freshmen from the lowest fourth of families in terms of income gained ground as a percentage of all entering freshmen, while those from the highest fourth of families declined as a percentage of the total. Young people from the second quartile increased their relative representation slightly while there was also a modest gain for those in the third quartile. This 1967 to 1972 influx of students from lower-income families coincides with the beginnings and ealy years of the score decline, lending credence to the possibility that lower test scores could have resulted from this change in population.

Between 1972 and 1973, however, this trend was reversed and enrollment of low-income young people declined. As illustrated in Table 1, there was an appreciable drop in the relative representation of freshmen in the lowest quartile and an increase in the share of the highest quartile. It might have been expected that test scores would have shown an increase rather than a decrease in 1973 if SAT-takers were representative of the entire freshman population, but this was not the case.

Table 1. Percentage of Entering Freshmen from Each Family Income Quartile, 1967 to 1974



Source: Carnegie Council on Policy studies in Higher Education, The Federal Role in Postsecondary Education: Unfinished Business, 1975-1980. San Francisco: Jossey-Bass Publishers, 1975, p. 15. 1974 data based on staff estimates of 1974 family income distribution and on freshman family income data from Chronicle of Higher Education, January 20, 1975, p. 8.

Between 1973 and 1974, freshmen from the lowest income quartile regained some lost ground, although their proportion of entering freshmen was still below the 1972 peak. Students from the second quartile also increased their relative proportion, while the percentages from the two upper quartiles fell off. Test scores continued to decline that year, although at a lesser rate. Comparable data are not yet available for 1975 and 1976.

Percent of Age Group in College by Income Levels

Table 2 presents selected college enrollment data for all dependent students, covering the same span of years from 1967 to 1974. It is important to note that although total college enrollment increased dramatically in absolute numbers, the percent enrolled from the total 18-to-24 age group decreased each year from 1969 to 1974. The proportion of black students increased slightly from 1970 to 1974 while the proportion of white students decreased, but the percent of black students enrolled still lags considerably behind that for whites.

With income held in constant dollar terms, the peak of enrollment percentages at various income levels appeared in 1969. At the levels below $10,000, the percentage of the age group enrolled in college shows a small but steady decline each year since 1971, while the percentage above $10,000 remains relatively constant.

In 1970, the discrepancies between enrollment rates of blacks and whites based on income were considerable. Among dependent 18-to-24-year-old students in families making less than $10,000, about twice as large a proportion of whites as blacks were enrolled in college. For those with family incomes above $10,000, the difference was smaller. By 1974, however, black and white students in the highest and lowest income ranges were attending in more equal proportion. Clearly, for both groups, the probability of college enrollment tended to increase with income.

As indicated on the bottom line of Table 2, median family incomes increased slightly each year over the eight year span, in constant dollar terms. The lower median income of black families reflects the fact that 64 percent of the 18-to-24-year-old black students who were dependent family members in 1974 were from families with incomes of less than $10,000, whereas 16 percent of white students were from families of the same economic status. One fourth of the black and 43 percent of the white students were from families making $10,000 to $20,000.

Just why the decline in relative proportions of low-income students occurred after 1969 is not clear. In absolute numbers, more low-income students enrolled earh year, but the overall distribution by income level changed only slightly.

Impact of Student Aid on Low-Income Enrollment

Very little comparative information is available on the impact of growing financial aid resources on the characteristics of college-enrolled students. Table 3 presents some comparative data for the years 1969-70

Table 2. College Enrollment Rates for Dependent Family Members by Income Level (Numbers in Thousands: Income in Constant Dollars)

	1974 Total	1974 White	1974 Black	1973	1972	1971	1970 Total	1970 White	1970 Black	1969	1968	1967
Total number enrolled (16 to 34 year olds)	8,589	7,776	813	8,179	8,313	8,087	7,281	6,759	522	7,435	6,960	6,401
Total percent enrolled (18 to 24 age group)	35.5%	37.6	22.2	36.2	37.8	38.4	39.3	42.5	20.4	42.0	40.1	39.1%
Family income levels (of 18 to 24 age group):												
Under $5,000	15.7%	15.6	14.6	15.3	17.3	17.5	17.0	20.6	10.8	19.4	18.5	16.4%
$5,000 to $9,999	26.0	24.5	26.6	26.3	29.1	30.0	33.6	35.1	23.9	32.7	31.2	29.5
$10,000 to $20,000	35.8	36.6	25.7	53.7	53.7	55.1	52.0	52.8	37.1	58.5	56.5	57.1
$20,000 and over	54.2	54.0	54.8									
Median family income (18 to 24 years enrolled)	$14,210	$18,500	$9,200	$14,679	$14,190	$13,947	$13,831	$17,800	$8,600	$13,798	$13,638	$13,481

Source: Bureau of the Census, Current Population Reports, P-20, No. 286 and P-23, No. 51.

and 1974-75. While full-time enrollment was growing, and average tuition and board charges were increasing dramatically in real dollar terms over this five-year period, available student aid more than tripled from $1.2 billion to $3.9 billion.

Federal, state, and private aid sources assumed a much larger role in 1975 than was true in 1970. The institutional share of aid support dropped from one-half to one-third. Although private institutions still provide 40 percent of the aid resources available to their students, combined federal and state student aid in 1975 more than equaled the total amount available through private institutions in 1970. The federal aid available to private institutions alone in 1975 exceeds the total federal aid through all institutions in 1970.

Significantly more federal student aid was granted to minority and female students in 1975 than was true for 1970, but in current dollar terms, a much higher percentage (77 percent) of federal student aid in 1970 was provided to low-income students than was the case in 1975 (33 percent). Even if independent, or self-supporting, students are counted as low-income (18 percent), it is evident that inflation, higher college costs, and changed eligibility standards have caused more federal aid dollars to be distributed to middle-income students.

In absolute terms, about the same number of low-income students received federal student aid in 1975 as in 1970, although with higher average award amounts. A significantly larger number of middle-income students were being helped with federal aid by 1975, effectively consuming most of the growth in federal aid since 1970.

Summary

In absolute numbers, universities and colleges enrolled increasing numbers of low-income students over the key years of score decline from 1967 to 1974. At the same time, the percentage of low-income freshmen relative to entering classes increased only until 1972, and the proportions of the college-enrolled age group from low-income families actually declined after 1969. Greatly expanded financial aid programs enabled many more students to enroll in college but appear to have had little impact on changing the overall family income patterns of enrolled students.

There is the possibility that the SAT-taking population of the mid-1960s to 1972 reflected the increased enrollment of university and college freshmen from low-income families, and that some part of the early score decline might be attributed to this shift. There is no evidence to indicate that the score decline after 1972 is due in any measurable part to a change in the distribution of family income patterns of college-bound or enrolled students.

Table 3. Comparison of College Enrollments, Charges, and Characteristics of Aid Available, 1969-70 to 1974-75

	1974-75			1969-70		
	Total	Public	Private	Total	Public	Private
Full-time enrollment (in thousands)	6,617	4,371	2,246	6,080	3,939	2,141
Average charges (tuition, board, room)	-	$1,708	$3,592	-	$1,288	$2,740
*Total aid available (in thousands)	$3,927	$2,027	$1,900	$1,238	$ 495	$ 743
Distribution:						
Federal sources	38.8%	46.9	30.4	32.9%	NA	NA
Institutional:						
Direct	26.0	21.6	30.7	49.2	NA	NA
Waivers	6.8	4.6	9.1			
State and local sources	19.7	18.7	20.7	15.4	NA	NA
Private sources	8.6	8.2	9.1	2.4	NA	NA
Characteristics - all O.E. aid through institutions (in thousands)						
Total	$1,584	$1,033	$ 551	$ 542	NA	NA
Percent	100%	65.2%	34.8%	100%	NA	NA
Characteristics - all O.E.-aided students						
Minority	33.6%	38.3	24.8	28.0%	NA	NA
Nonminority	66.4	61.7	75.2	72.0	NA	NA
Female	51.0	47.7	51.3	41.0	NA	NA
Male	49.0	52.3	48.7	59.0	NA	NA

(continued)

Table 3. (Continued)

	1974-75			1969-70		
	Total	Public	Private	Total	Public	Private
Dependent undergraduate family income:						
Less than $7,500	33.3%	35.6	28.2	77.2%	NA	NA
$7,500 to $11,999	24.8	24.4	25.8	21.8	NA	NA
$12,000 and above	19.1	14.0	30.0	1.0	NA	NA
Independent undergraduates	18.0	22.0	9.3	NA	NA	NA
Graduate students	4.8	3.9	6.8	NA	NA	NA

*Not included are programs outside institutional jurisdiction, e.g., social security, veterans' benefits, Guaranteed Loan Program.

Source: ACE Fact Books, 1975, and ACE 1975 Survey of Student Assistance; and Edward Sanders and James Nelson, "Financing of Undergraduates, 1969-70." Financial Aid News, Vol. 10, No. 2, July 1970.